10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Glial Fibrillary Acidic Protein (GFAP) Antibody
Rabbit polyclonal antibody
Catalog # AN1143

Specification

Glial Fibrillary Acidic Protein (GFAP) Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q28115
Reactivity	**Rat**
Predicted	**Human, Mouse**
Host	**rabbit**
Clonality	**polyclonal**
Calculated MW	**50 KDa**

Glial Fibrillary Acidic Protein (GFAP) Antibody - Additional Information

Gene ID	**281189**
Gene Name	**GFAP**

Other Names
Glial fibrillary acidic protein, GFAP, GFAP

Target/Specificity
Recombinant and purified bovine GFAP.

Dilution
WB~~ 1:5000
IF~~ 1:1000

Format
Unpurified neat serum

Antibody Specificity
Specific for the ~50kDa GFAP protein. A lower band at ~45kDa is a proteolytic fragment derived from the GFAP molecule.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Glial Fibrillary Acidic Protein (GFAP) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

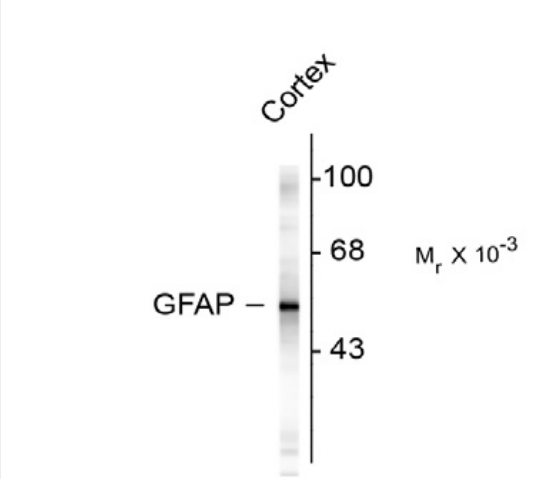
Shipping
Blue Ice

Glial Fibrillary Acidic Protein (GFAP) Antibody - Protocols

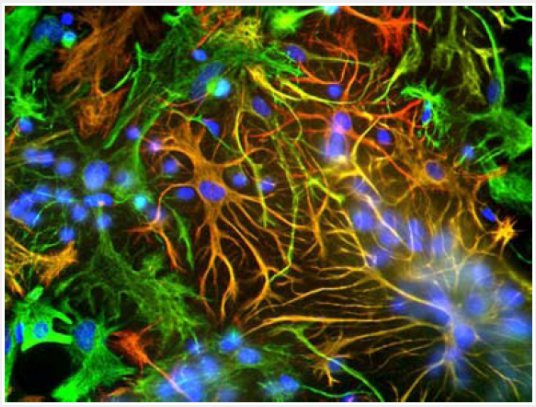
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Glial Fibrillary Acidic Protein (GFAP) Antibody - Images



Western blot of rat cortex lysate showing specific immunolabeling of the ~ 50k GFAP protein.



Immunofluorescence showing specific labeling of GFAP (red) and vimentin (green) in cultured neurons and glia. Cells containing GFAP and vimentin appear yellow.

Glial Fibrillary Acidic Protein (GFAP) Antibody - Background

Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and co-workers as a major fibrous protein of multiple sclerosis plaques (1). It was subsequently found to be a member of the 10nm or intermediate filament (IF) family, specifically the IF family Class III, which also includes peripherin, desmin and vimentin. GFAP is strongly and specifically expressed in astrocytes and certain other astroglia in the CNS, in satellite cells, peripheral ganglia, and in non-myelinating Schwann cells in peripheral nerves. In many damage and disease states GFAP expression is heavily upregulated in astrocytes. In addition, neural stem cells frequently strongly express GFAP. Point

mutations in the protein coding region of the GFAP gene lead to Alexander disease which is characterized by the presence of abnormal astrocytes containing GFAP protein aggregates known as Rosenthal fibers (2).

Glial Fibrillary Acidic Protein (GFAP) Antibody - References

1. Bignami A, Eng LF, Dahl D, Uyeda CT. Localization of the glial fibrillary acidic protein in astrocytes by immunofluorescence. Brain Res. 43:429-35 (1972).
2. Brenner M, Johnson AB, Boespflug-Tanguy O, Rodriguez D, Goldman JE and Messing A. Mutations in GFAP, encoding glial fibrillary acidic protein, are associated with Alexander disease. Nat Genet 27:117-20 (2001)

Glial Fibrillary Acidic Protein (GFAP) Antibody - Citations

- Pro-differentiating effects of a synthetic flavagline on human teratocarcinomal cancer stem-like cells.